

RECUPERATED GAS TURBINE ENGINE SYSTEM AND METHOD
EMPLOYING CATALYTIC COMBUSTION

ABSTRACT OF THE DISCLOSURE

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A recuperated gas turbine engine system and associated method employing catalytic combustion, wherein the combustor inlet temperature can be controlled to remain above the minimum required catalyst operating temperature at a wide range of operating conditions from full-load to part-load and from hot-day to cold-day conditions.

10 The fuel is passed through the compressor along with the air and a portion of the exhaust gases from the turbine. The recirculated exhaust gas flow rate is controlled to control combustor inlet temperature.